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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,113	06/06/2006	Franz Chmela	66376-379-7	7236
25269	7590	09/12/2007		EXAMINER
DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005				ARGENBRIGHT, TONY MICHAEL
			ART UNIT	PAPER NUMBER
			3747	
				MAIL DATE
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			09/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/575,113	CHMELA ET AL.
	Examiner	Art Unit
	T. M. Argenbright	3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 August 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 70-156 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 70,71,74-85,87-98,155 and 156 is/are allowed.
 6) Claim(s) 72,73 and 99-154 is/are rejected.
 7) Claim(s) 86 and 142 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/17/06</u>	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Drawings

This file contains no drawings. Drawings were not communicated by the International Bureau for this application. Applicant is required to submit replacement drawings. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to **patentability** as defined in 37 CFR 1.56.

Specification

The disclosure is objected to because of the following informalities: the reservation clauses on page 36, lines 1-13 are objected to under 37 CFR 1.79. See MPEP 608.01(e). Appropriate correction is required.

Claim Objections

Claims 86 and 142 are objected to because of the following informalities: In claim 86, line 1, "claims" should read "to claim" and claim 142 improperly depends from claim 145. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 72, 73, 99-124, 128, 130-154 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 72, line 4 and claim 128, line 3, "preferably" does not particularly point out the invention.

In claims 130, 132, 133, 144 and 145, line 2 and claim 135, line 3, "can be" does not particularly point the invention.

Claims 99 and 110 contain no method steps.

In claims 140-143 and 151-154, there is no antecedent for "the depression".

In claims 136-138 and 147-149, D, D_B , D_T and H_B should be defined in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 125-128 are rejected under 35 U.S.C. 102(e) as being anticipated by Stewart et al (6,769,635). Stewart et al discloses a diesel engine having an injector with first orifices 65 and second orifices 66 located on conical surfaces with the angle of the first surface less than the angle of the second surface, as shown in Figures 2, 4 and 12. The nozzle needles for the orifices are coaxial with one guided within the other.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 129 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al (6,769,635) in view of Ouellette et al. Ouellette et al teaches that coaxial needles may be placed side by side in a nozzle holder as a design equivalent in Figure 8. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Stewart et al to place the nozzle needles side by side in a nozzle holder as an alternative design, as taught by Ouellette et al.

Claims 130 and 131 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al (6,769,635) in view of Dahlgren et al. Dahlgren et al discloses a pulsed supercharging system having flap valves 13 and 14. The flap valves are designed to be light in weight for short reaction time, column 2, lines 5-18. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Stewart et al to use pulsed supercharging to increase engine output, as taught by Dahlgren et al in column 1, lines 29-43.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Allowable Subject Matter

Claims 72, 73, 99-124 and 132-154 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 70, 71, 74-85, 87-98, 155 and 156 are allowed.

Conclusion

The diesel engines made of record and not relied upon are considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. M. Argenbright whose telephone number is 571-272-4837. The examiner can normally be reached M-Th 6:30am-3:00pm and alt. Fridays 6:30am-2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen K. Cronin can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

T. M. Argenbright
T. M. Argenbright
Primary Examiner
Art Unit 3747